Chemical Analysis Report

TLH-ROC-2018-08-28-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Run 2**
Request ID: **RQ-2018-06-18-51**
Customer: **TLH-ROC**
Project ID: **SMP**

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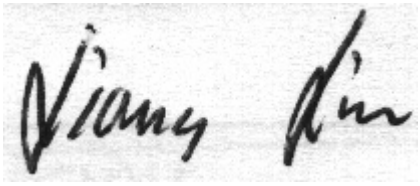
Date Certified: 13-SEP-2018 15:39



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical group are included in this report: Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: LITTLE AUCILLA RIVER **Collection Date/Time: 08/28/2018 15:10**

Field ID: G1TLHR0029 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020598	EPA 180.1 Rev. 2.0	Turbidity	0.90		NTU	P350968	
	EPA 300.0 Rev. 2.1	Chloride	4.0		mg Cl/L	P350987	
		Sulfate	0.20	U	mg SO4/L	P350990	
	SM 2120 B	Color (true)	720		PCU	P350926	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P351050	
	SM 2540 C-97	TDS	83		mg/L	P351239	
	SM 2540 D-97	TSS	2	I	mg/L	P351070	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P351053	
2020601	EPA 350.1 Rev. 2.0	Ammonia-N	0.19		mg N/L	P351085	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.0		mg N/L	P350983	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P351127	
	EPA 365.1 Rev. 2.0	Total-P	0.087		mg P/L	P350956	
	SM 5310 B-00	Organic Carbon	55		mg C/L	P351336	
2020604	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.061		mg P/L	P350919	

Sample Location: JUMPING GULLEY CREEK **Collection Date/Time: 08/28/2018 14:00**

Field ID: G1TLHR0033 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020599	EPA 180.1 Rev. 2.0	Turbidity	2.5		NTU	P350968	
	EPA 300.0 Rev. 2.1	Chloride	5.5		mg Cl/L	P350987	
		Sulfate	0.48	I	mg SO4/L	P350990	
	SM 2120 B	Color (true)	260		PCU	P350926	
	SM 2320 B-97	Total Alkalinity	2.7		mg CaCO3/L	P351050	
	SM 2540 C-97	TDS	58		mg/L	P351239	
	SM 2540 D-97	TSS	3	I	mg/L	P351070	
	SM 4500 F-C-97	Fluoride	0.081	I	mg F/L	P351053	
2020602	EPA 350.1 Rev. 2.0	Ammonia-N	0.018		mg N/L	P351085	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.91		mg N/L	P350983	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.31		mg N/L	P351127	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P350956	
	SM 5310 B-00	Organic Carbon	21		mg C/L	P351336	
2020605	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.13		mg P/L	P350919	

Sample Location: ALLEN MILL POND SPRING **Collection Date/Time: 08/28/2018 11:55**

Field ID: G1TLHR0006 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2020600	EPA 180.1 Rev. 2.0	Turbidity	0.15		NTU	P350968	
	EPA 300.0 Rev. 2.1	Chloride	5.9		mg Cl/L	P350987	
		Sulfate	9.9		mg SO4/L	P350990	
	SM 2120 B	Color (true)	7.8		PCU	P350926	
	SM 2320 B-97	Total Alkalinity	209		mg CaCO3/L	P351050	
	SM 2540 C-97	TDS	246		mg/L	P351239	
	SM 2540 D-97	TSS	2	I	mg/L	P351070	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P351053	
2020603	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P351085	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25		mg N/L	P350983	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.9		mg N/L	P351127	
	EPA 365.1 Rev. 2.0	Total-P	0.043		mg P/L	P350956	
	SM 5310 B-00	Organic Carbon	1.9		mg C/L	P351336	
2020606	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P350919	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P350968

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350987

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350990

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351085

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P350983

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351127

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350956

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P350919

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: SM 2120 B
Batch ID: P350926

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-97
Batch ID: P351050

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97
Batch ID: P351239

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P351070

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P351053

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P351336

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350987

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350990

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.7		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P350983

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	105		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351127

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350956

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P350919

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.7		P	90 - 110

Reference Method: SM 2120 B
Batch ID: P350926

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.1		P	85 - 115

Reference Method: SM 2320 B-97
Batch ID: P351050

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	98 - 107

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P351053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P351336

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.1		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350987

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020175	Chloride	97.6		P	90 - 110
2020467	Chloride	97.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350990

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020175	Sulfate	98.1		P	90 - 110
2020467	Sulfate	101		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020524	Ammonia-N	96.7	97.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P350983

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020565	Kjeldahl Nitrogen	98.2	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351127

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020524	NO2NO3-N	98.7	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350956

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020603	Total-P	95.8	91.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P350919

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020642	O-Phosphate-P	95.0	95.7	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P351053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020698	Fluoride	98.6	98.6	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P351336

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2020368	Organic Carbon	95.5	97.9	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P350968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020643	Turbidity	5.29	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350987

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020175	Chloride	8.28	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P350990

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020175	Sulfate	9.98	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P351085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020524	Ammonia-N	0.546	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P350983

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020565	Kjeldahl Nitrogen	2.97	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P351127

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020524	NO2NO3-N	2.44	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P350956

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020603	Total-P	3.86	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P350919

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020642	O-Phosphate-P	0.734	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: SM 2120 B
Batch ID: P350926

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020563	Color (true)	3.96	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P351050

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020698	Total Alkalinity	0.556	Sample	P	0 - 1.6

Reference Method: SM 2540 C-97
Batch ID: P351239

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020476	TDS	5.52	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P351070

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020476	TSS	5.88	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P351053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020698	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P351336

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2020368	Organic Carbon	1.64	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A86187
Included Lab Sample IDs: 2020604, 2020605, 2020606

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	101	101	P/P	90 - 110
O-Phosphate-P	101	100	P/P	90 - 110

Reference Method: SM 2120 B
Run ID: A86191
Included Lab Sample IDs: 2020598, 2020599, 2020600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.9	98.5	P/P	90 - 115
Color (true)	99.3	98.3	P/P	90 - 115

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A86194
Included Lab Sample IDs: 2020598, 2020599, 2020600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	106	95.8	P/P	90 - 110
Chloride	95.8	97.1	P/P	90 - 110
Sulfate	104	94.3	P/P	90 - 110
Sulfate	94.3	95.7	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A86212
Included Lab Sample IDs: 2020598, 2020599, 2020600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	104	102	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A86222
Included Lab Sample IDs: 2020601, 2020602

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A86233
Included Lab Sample IDs: 2020603

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A86252
Included Lab Sample IDs: 2020598, 2020599, 2020600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	104	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: SM 4500 F-C-97
Run ID: A86252
Included Lab Sample IDs: 2020598, 2020599, 2020600

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	101	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A86268
Included Lab Sample IDs: 2020601, 2020602, 2020603

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	109	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A86276
Included Lab Sample IDs: 2020601, 2020602, 2020603

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A86298
Included Lab Sample IDs: 2020601, 2020602, 2020603

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: SM 5310 B-00
Run ID: A86377
Included Lab Sample IDs: 2020601, 2020602, 2020603

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	94.5	93.6	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
EPA 180.1 Rev. 2.0	Turbidity					5.29	
EPA 300.0 Rev. 2.1	Chloride	102	97.6	97.0		8.28	
	Sulfate	101	98.1	101		9.98	
EPA 350.1 Rev. 2.0	Ammonia-N	96.7	96.7	97.3			0.546
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	98.2	104			2.97
EPA 353.2 Rev. 2.0	NO2NO3-N	100	98.7	101			2.44
EPA 365.1 Rev. 2.0	Total-P	96.2	95.8	91.8			3.86
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	95.0	95.7			0.734
SM 2120 B	Color (true)	96.1				3.96	
SM 2320 B-97	Total Alkalinity	103				0.556	
SM 2540 C-97	TDS					5.52	
SM 2540 D-97	TSS					5.88	
SM 4500 F-C-97	Fluoride	98.7	98.6	98.6			0.0
SM 5310 B-00	Organic Carbon	97.1	95.5	97.9			1.64

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2020598, 2020599, 2020600
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	2020598, 2020599, 2020600
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	2020598, 2020599, 2020600
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2020601, 2020602, 2020603
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2020601, 2020602, 2020603
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2020601, 2020602, 2020603
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2020601, 2020602, 2020603
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2020604, 2020605, 2020606
SM 2120 B / E31780	True Color measured at 450 nm	2020598, 2020599, 2020600
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	2020598, 2020599, 2020600
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	2020598, 2020599, 2020600
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2020598, 2020599, 2020600
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2020598, 2020599, 2020600
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2020601, 2020602, 2020603

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	08/28/2018			08/29/2018 15:21	Megan Treadwell	2020598, 2020599, 2020600
EPA 300.0 Rev. 2.1	08/28/2018			08/30/2018 22:42	Lipi Saha	2020598
	08/28/2018			08/30/2018 23:18	Lipi Saha	2020599
	08/28/2018			08/30/2018 23:30	Lipi Saha	2020600
EPA 350.1 Rev. 2.0	08/28/2018			09/04/2018 11:38	Ping Hua	2020601
	08/28/2018			09/04/2018 11:40	Ping Hua	2020602
	08/28/2018			09/04/2018 11:41	Ping Hua	2020603
EPA 351.2 Rev. 2.0	08/28/2018	08/31/2018 15:00	Adrian Shelby	09/04/2018 09:58	Joseph Suarez	2020601
	08/28/2018	08/31/2018 15:00	Adrian Shelby	09/04/2018 10:00	Joseph Suarez	2020602
	08/28/2018	08/31/2018 15:00	Adrian Shelby	09/04/2018 10:02	Joseph Suarez	2020603
EPA 353.2 Rev. 2.0	08/28/2018			09/05/2018 14:04	Lauren Bottorf	2020601
	08/28/2018			09/05/2018 14:05	Lauren Bottorf	2020602
	08/28/2018			09/05/2018 15:41	Lauren Bottorf	2020603
EPA 365.1 Rev. 2.0	08/28/2018	08/30/2018 11:37	Sima Feizi	08/31/2018 08:16	Beverly Y. Sanders	2020601
	08/28/2018	08/30/2018 11:37	Sima Feizi	08/31/2018 08:17	Beverly Y. Sanders	2020602
	08/28/2018	08/30/2018 11:37	Sima Feizi	08/31/2018 11:58	Beverly Y. Sanders	2020603
EPA 365.1 Rev. 2.0 dissolved	08/28/2018			08/29/2018 15:41	Julia Storbeck	2020604
	08/28/2018			08/29/2018 15:42	Julia Storbeck	2020606
	08/28/2018			08/29/2018 15:47	Julia Storbeck	2020605
SM 2120 B	08/28/2018			08/29/2018 15:48	DeAsia Armster	2020600
	08/28/2018			08/29/2018 16:09	DeAsia Armster	2020598
	08/28/2018			08/29/2018 16:10	DeAsia Armster	2020599
SM 2320 B-97	08/28/2018			08/31/2018 08:24	Dale L. Simmons	2020598
	08/28/2018			08/31/2018 08:33	Dale L. Simmons	2020599
	08/28/2018			08/31/2018 08:44	Dale L. Simmons	2020600
SM 2540 C-97	08/28/2018			08/30/2018 14:22	Yijie Li	2020598, 2020599, 2020600
SM 2540 D-97	08/28/2018			08/30/2018 14:22	Yijie Li	2020598, 2020599, 2020600
SM 4500 F-C-97	08/28/2018			08/31/2018 08:24	Dale L. Simmons	2020598
	08/28/2018			08/31/2018 08:33	Dale L. Simmons	2020599
	08/28/2018			08/31/2018 08:44	Dale L. Simmons	2020600
SM 5310 B-00	08/28/2018			09/07/2018 20:44	Megan Treadwell	2020601
	08/28/2018			09/07/2018 20:58	Megan Treadwell	2020602
	08/28/2018			09/07/2018 21:11	Megan Treadwell	2020603